

Science, Grades 4, 8, and 11

Chart 1: 4, 8, 11 SC

The chart below shows the National Percentile Ranks for grades 4, 8, and 11.

- In 2001, grade 4 scored an NPR of 71%, grade 8 an PR of 64%, and grade 11 an NPR of 70%.
- In 2005, the NPRs for grades 4 and 8 are the same as in 2001, 71% and 64% respectively. The grade 11 NPR in 2005 is one percentage point below 2001, 69%.

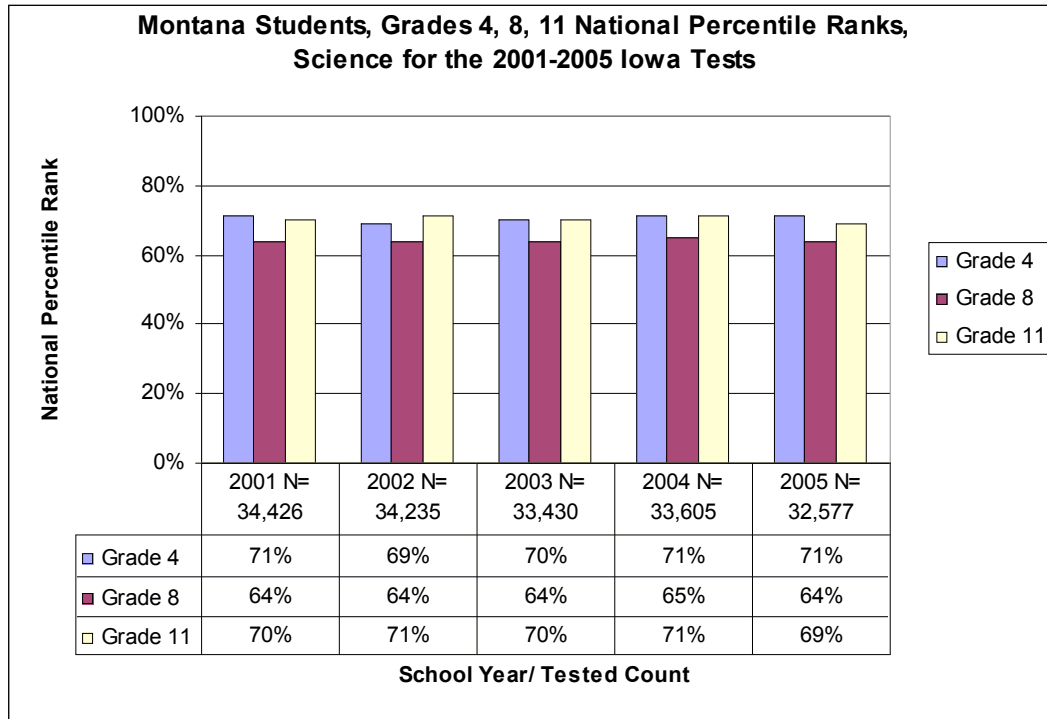


Table 1: 4, 8, 11 SC

Science National Percentile Rank for each disaggregation across Montana in 2001-2005

Groups	Grade 4					Grade 8					Grade 11				
	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
All Students	71%	69%	70%	71%	71%	64%	64%	64%	65%	64%	70%	71%	70%	71%	69%
Students Without Disabilities	72%	71%	72%	73%	73%	67%	68%	67%	68%	68%	72%	73%	73%	73%	72%
Students With Disabilities	50%	46%	51%	55%	55%	36%	34%	35%	37%	34%	32%	34%	34%	34%	31%
Female Students	70%	68%	70%	70%	70%	65%	66%	66%	66%	66%	72%	73%	73%	72%	71%
Male Students	72%	70%	70%	72%	72%	63%	63%	62%	64%	62%	67%	68%	68%	69%	67%
Native American Students	50%	49%	48%	52%	51%	42%	41%	43%	43%	43%	51%	48%	46%	47%	43%
White Students	73%	72%	73%	74%	74%	67%	68%	67%	68%	67%	71%	72%	73%	73%	71%
Students on Free/Reduced Lunch	59%	58%	60%	61%	62%	53%	53%	52%	55%	53%	58%	58%	59%	58%	56%
LEP*	NA	35%	33%	41%	35%	NA	32%	29%	30%	30%	NA	40%	41%	37%	35%

* LEP 2001 data were incomplete.

Table 2: 4, 8, 11 SC

Science: The table below shows the percentage of students for each disaggregation scoring in each performance category in grades 4, 8, and 11 for the 2001-2005 Iowa Tests.

Groups/Year		Grade 4				Grade 8				Grade 11			
		Advanced Stanines 8-9	Proficient Stanines 5-7	NP Stanines 4	Novice Stanines 1-3	Advanced Stanines 8-9	Proficient Stanines 5-7	NP Stanines 4	Novice Stanines 1-3	Advanced Stanines 8-9	Proficient Stanines 5-7	NP Stanines 4	Novice Stanines 1-3
All Students	2001	22%	60%	10%	8%	18%	60%	12%	10%	21%	60%	9%	10%
	2002	21%	60%	10%	9%	18%	59%	12%	11%	23%	58%	9%	10%
	2003	22%	60%	10%	8%	17%	60%	12%	11%	22%	59%	9%	10%
	2004	23%	61%	10%	6%	17%	62%	12%	9%	23%	58%	9%	10%
	2005	17%	63%	13%	7%	17%	60%	12%	12%	22%	57%	9%	12%
Students Without Disabilities	2001	24%	61%	9%	7%	20%	62%	11%	7%	22%	62%	8%	8%
	2002	22%	61%	10%	7%	19%	62%	11%	8%	25%	60%	7%	8%
	2003	23%	61%	9%	7%	19%	62%	11%	8%	24%	61%	8%	8%
	2004	24%	62%	9%	5%	19%	65%	10%	7%	25%	60%	7%	8%
	2005	18%	64%	12%	6%	19%	62%	10%	8%	24%	59%	8%	9%
Students With Disabilities	2001	8%	53%	20%	19%	3%	37%	24%	37%	2%	39%	21%	38%
	2002	6%	51%	20%	23%	3%	34%	25%	38%	2%	39%	23%	36%
	2003	8%	53%	20%	19%	2%	39%	23%	36%	3%	39%	22%	36%
	2004	9%	56%	19%	16%	3%	38%	27%	32%	3%	39%	22%	36%
	2005	7%	52%	23%	17%	3%	37%	23%	37%	3%	34%	24%	39%
Female Students	2001	21%	61%	10%	8%	16%	65%	11%	8%	21%	64%	8%	7%
	2002	19%	62%	11%	8%	17%	63%	11%	9%	23%	62%	8%	7%
	2003	21%	62%	10%	7%	17%	63%	12%	8%	22%	63%	8%	7%
	2004	20%	63%	10%	6%	16%	65%	12%	7%	22%	62%	8%	8%
	2005	15%	65%	13%	7%	17%	63%	11%	9%	22%	61%	8%	9%
Male Students	2001	24%	59%	9%	8%	20%	55%	12%	12%	21%	57%	10%	12%
	2002	22%	58%	11%	9%	18%	56%	13%	13%	23%	55%	9%	13%
	2003	22%	59%	10%	9%	17%	57%	13%	13%	22%	55%	10%	13%
	2004	25%	59%	10%	6%	18%	58%	12%	12%	24%	54%	9%	13%
	2005	19%	61%	13%	7%	18%	56%	12%	14%	22%	53%	11%	14%
Native American Students	2001	8%	52%	20%	20%	4%	46%	21%	29%	7%	55%	18%	19%
	2002	6%	55%	20%	19%	4%	44%	24%	28%	7%	57%	13%	23%
	2003	6%	52%	21%	21%	5%	48%	21%	25%	6%	54%	17%	23%
	2004	8%	56%	20%	16%	4%	51%	21%	24%	6%	55%	17%	22%
	2005	4%	54%	24%	18%	6%	46%	20%	27%	4%	52%	17%	27%
White Students	2001	20%	60%	18%	2%	20%	62%	11%	8%	22%	61%	8%	9%
	2002	23%	62%	8%	7%	20%	62%	10%	8%	25%	59%	7%	9%
	2003	24%	61%	9%	6%	19%	62%	11%	8%	24%	59%	8%	8%
	2004	25%	62%	9%	5%	19%	63%	11%	7%	25%	58%	8%	9%
	2005	19%	64%	11%	5%	19%	62%	10%	9%	24%	58%	8%	10%
Students on Free/Reduced Lunch	2001	14%	52%	18%	16%	8%	55%	18%	18%	11%	59%	14%	16%
	2002	12%	60%	14%	14%	8%	55%	18%	19%	13%	58%	12%	17%
	2003	12%	61%	15%	13%	8%	55%	18%	19%	12%	60%	12%	16%
	2004	13%	62%	15%	10%	9%	58%	16%	16%	13%	57%	13%	17%
	2005	10%	60%	19%	11%	9%	56%	17%	19%	12%	55%	14%	19%
LEP*	2001	Na	Na	Na	Na	Na	Na	Na	Na	Na	Na	Na	Na
	2002	1%	46%	24%	29%	1%	33%	30%	36%	4%	49%	16%	31%
	2003	2%	38%	27%	33%	0%	32%	24%	44%	2%	52%	18%	27%
	2004	3%	49%	26%	22%	1%	31%	26%	42%	3%	46%	22%	29%
	2005	1%	39%	29%	31%	1%	31%	23%	45%	3%	39%	23%	35%

*LEP 2001 data were incomplete.

Table 3: 4, 8, 11 SC

Customized Skills Reports: Montana Science Standards tested in the 2001-2005 Iowa Tests

Standard			Design, conduct, evaluate and communicate investigations	Understand physical and chemical systems	Understand the structures and functions of living things	Understand Earth’s systems and interactions	Understand the impact of science and technology on society
Grade 4	# of Items		19	5*	10	8	2*
	Percent Correct	01	60%	69%	67%	67%	58%
		02	60%	68%	66%	66%	58%
		03	61%	67%	66%	68%	57%
		04	62%	67%	67%	69%	58%
05	62%	68%	67%	68%	57%		
Grade 8	# of Items		28	14	7	8*	3*
	Percent Correct	01	68%	65%	59%	59%	55%
		02	67%	65%	58%	59%	55%
		03	67%	65%	58%	58%	54%
		04	68%	65%	59%	58%	54%
05	68%	64%	58%	58%	54%		
Grade 11	# of Items		45	9*	5*	1*	1*
	Percent Correct	01	56%	53%	59%	64%	61%
		02	57%	53%	59%	63%	60%
		03	56%	53%	59%	64%	61%
		04	57%	52%	60%	64%	60%
05	55%	53%	58%	62%	60%		
* The Iowa Tests measure the knowledge dimension of the Montana Standard, but do not adequately measure the application aspect.							

Tables 4a and 4b: 11 SC

ACT Science Reasoning results for the high school graduating classes of 2001-2005

	Average Score All National	Average Score All Montana	Average Score White Montana	Average Score Native American Montana
2001	21.0	21.9	22.1	18.4
2002	20.8	21.8	21.9	18.25
2003	20.8	21.7	22.0	18.5
2004	20.9	21.7	22.0	18.1
2005	20.9	21.8	22.1	17.9

Number of Montana graduating classes of 2001-2005 participating in the ACT

	Total Montana Students	White Montana	Native American Montana
2001	6,641	5,699	319
2002	6,368	5,460	300
2003	6,470	5,514	282
2004	6,255	5,259	300
2005	6,178	5,154	312

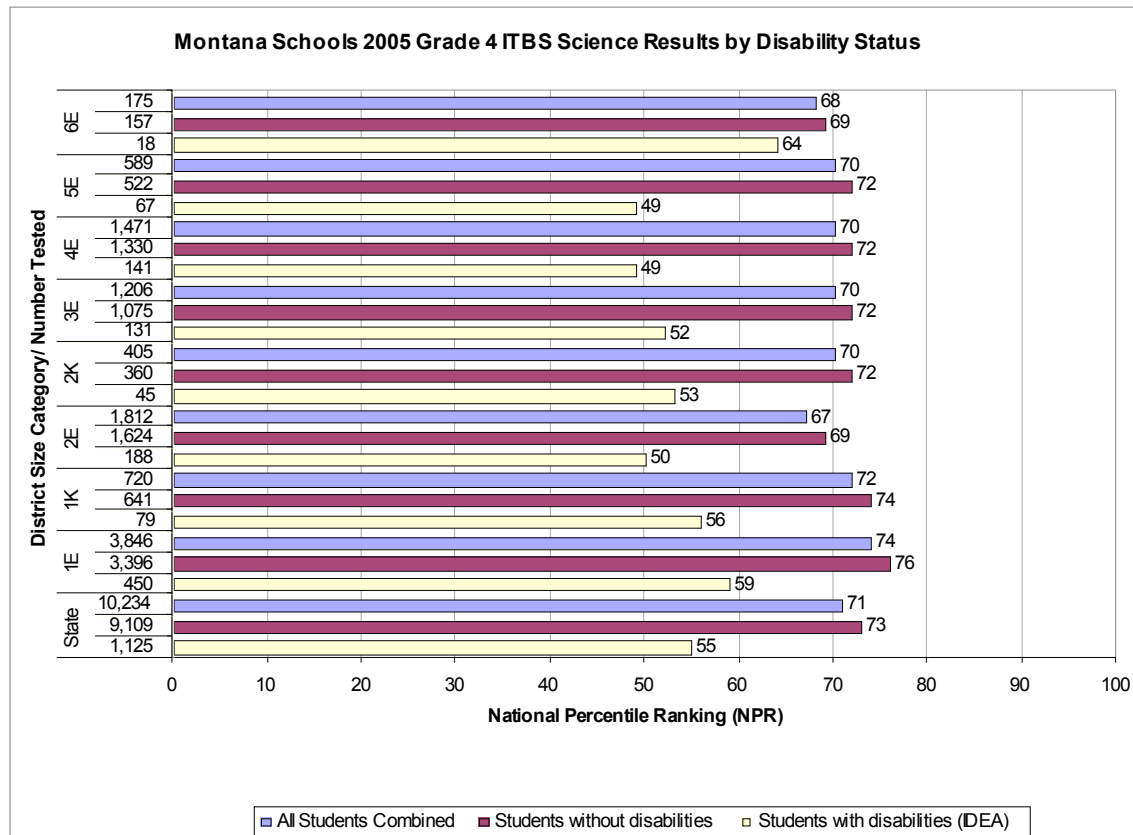
Table 5: 4, 8, 11 SC

NAEP data from 1994 and 1998 are included to add the picture of student achievement in Science. Although NAEP data give another perspective to the picture of Montana students in grades four and eight tested in 1994 and 1998, these are not the same 4th and 8th grade students measured in the 2002 statewide assessment.

With the scores of Montana White and Montana Native American students are percent of students who scored basic or above. It should be noted that the number of White students tested is considerably larger and therefore, generalizations are safer. For example, in the 2000 grade 8 test, 1,448 Montana White students and 129 Montana Native American students were included in the testing sample.

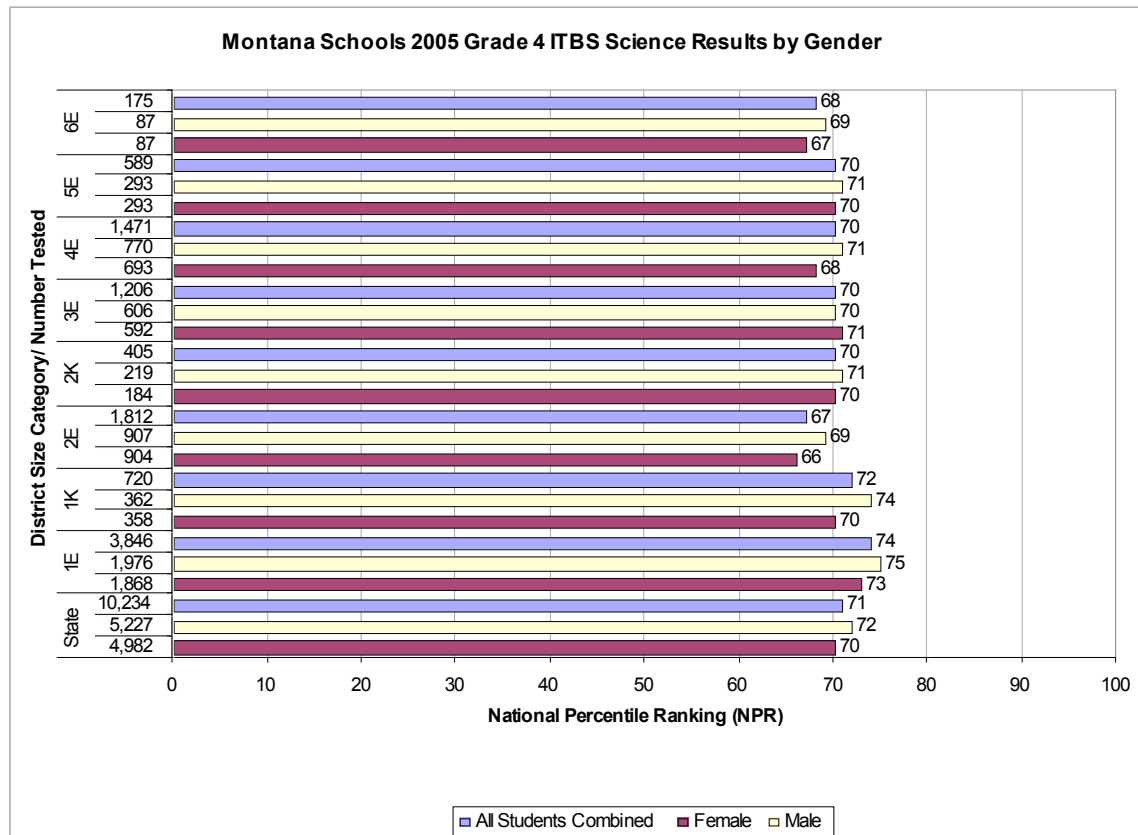
Grade:Year	Average Score					
	All National	White National	Native American National	All Montana	White Montana	Native American Montana
4: 2000	150	160	140	160	164 (86%)	145 (63%)
8: 1996	150	159	148	162	166 (83%)	139 (44%)
8: 2000	151	162	134	165	168 (84%)	143 (49%)

Chart 4.1 SC



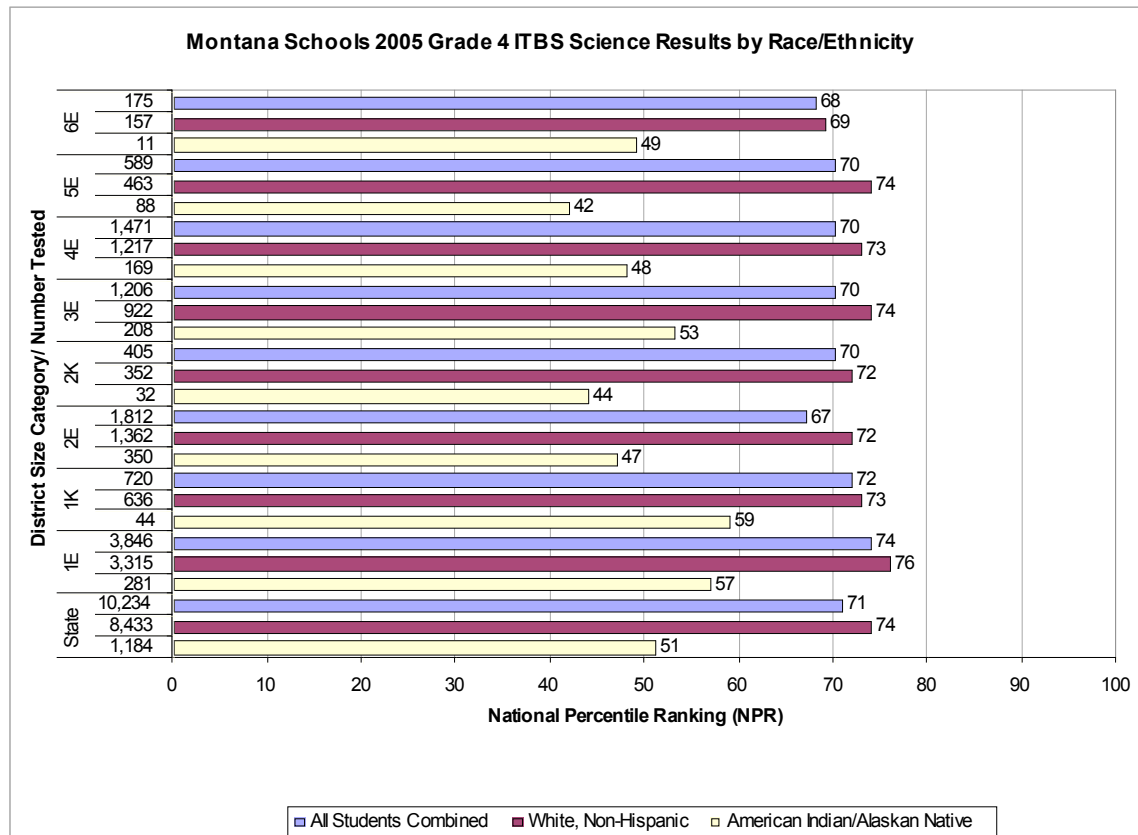
1. All students
 - The Science NPR for all Montana grade 4 students is the same as in 2004, 71%.
2. Students without disabilities
 - Statewide, the NPR for students without disabilities is the same as in 2004, 73%. That number is stable across the state with all district size categories plus or minus 2-4 percentage points.
3. Students with disabilities
 - Statewide, the NPR for students with disabilities is the same as in 2004, 55%. That number is relatively stable across the state with most district size categories plus or minus 4-6 percentage points except 6E where the number of students test is too small for comparisons.
4. Comparisons
 - Statewide, Montana students without disabilities scored eighteen percentage points above students with disabilities, 73% and 55% respectively.

Chart 4.2 SC



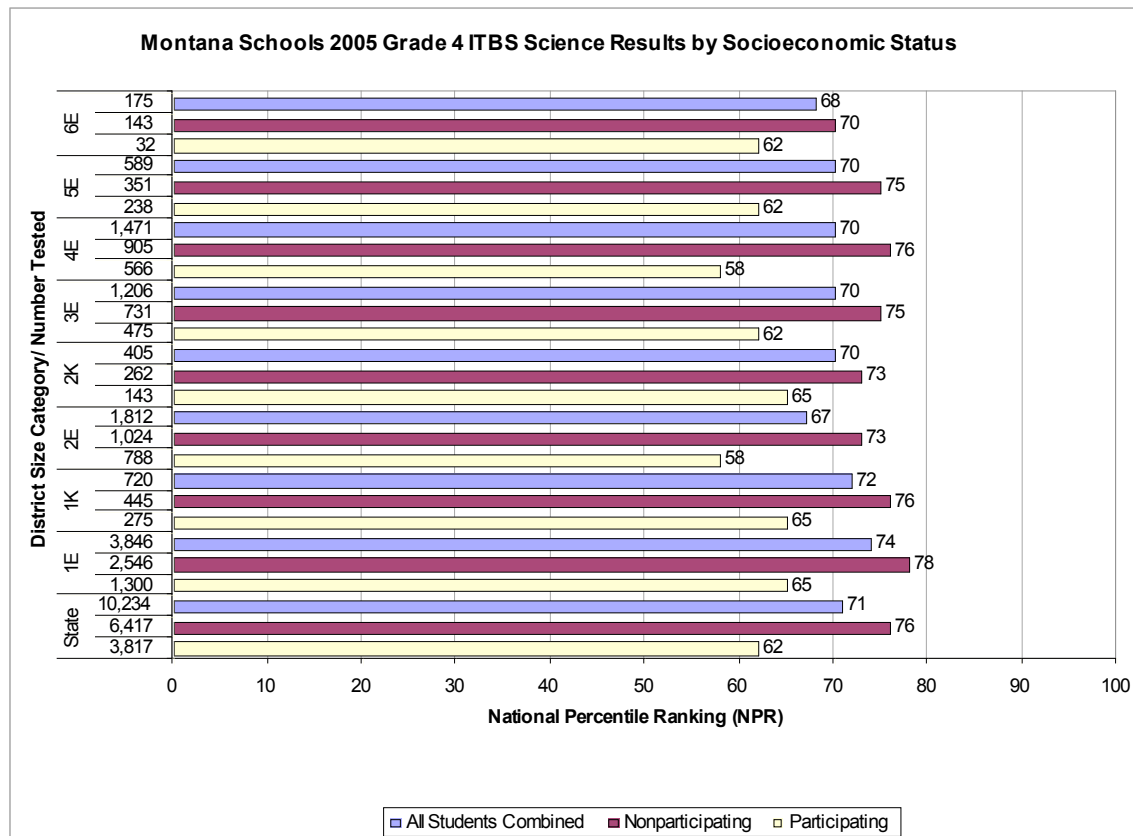
1. All students
 - The Science NPR for all Montana grade 4 students is 71%.
2. Female students
 - Statewide, the NPR for female students is the same as in 2004, 70%. That number is stable across the state with all district size categories plus or minus 2-4 percentage points.
3. Male students
 - Statewide, the NPR for male students is the same as in 2004, 72%. That number is stable across the state with all district size categories plus or minus 2-4 percentage points.
4. Comparisons
 - Statewide, male students scored two percentage points higher than female students, 72% and 70% respectively.

Chart 4.3 SC



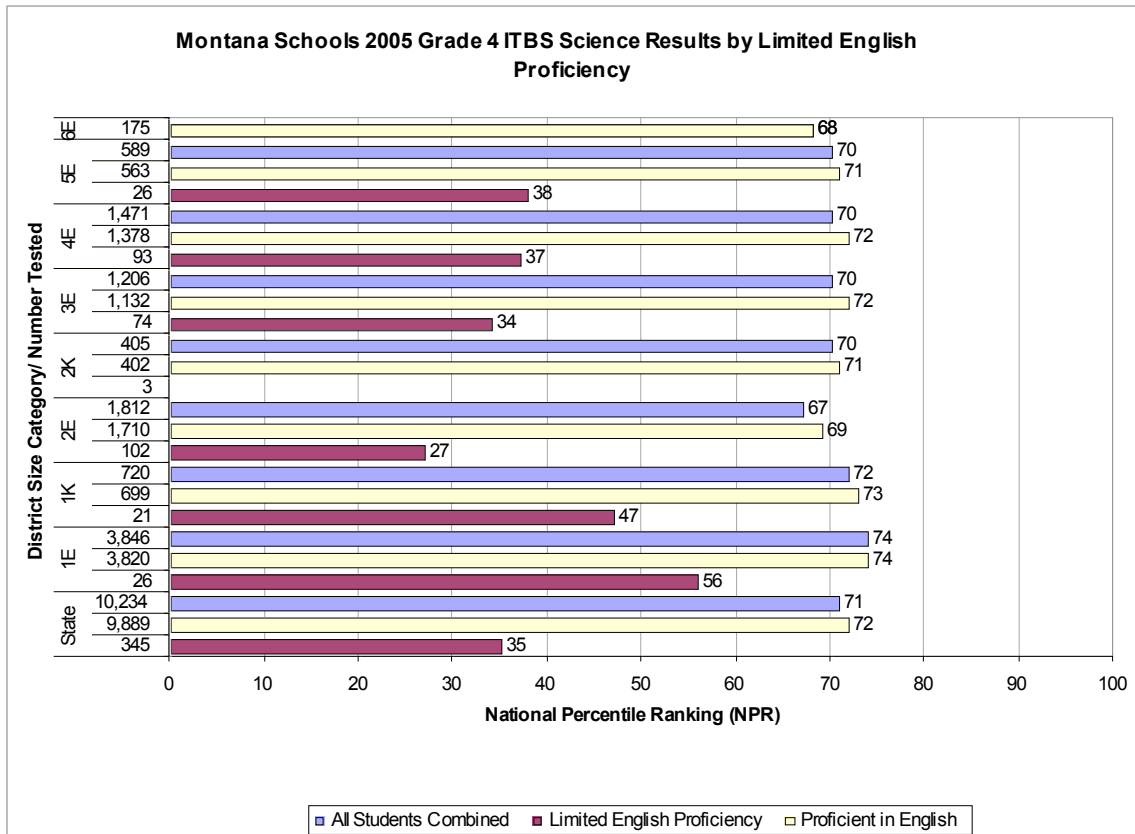
1. All students
 - The Science NPR for all Montana grade 4 students is 71%.
2. Native American students
 - Statewide, the NPR for Native American students is 51%, one percentage point below 2004. That number is relatively stable across the state with most district size categories plus or minus 4-6 percentage points except 5E, where students averaged 42%, and 1K, 2K, and 6E where the number of students tested is too small for comparisons.
3. White students
 - Statewide, the NPR for White students is the same as in 2004, 74%. That number is stable across the state with all district size categories plus or minus 2-5 percentage points.
4. Comparisons
 - Statewide, White students scored 23 percentage points above Native American students, 74% and 51% respectively. That number is relatively stable.

Chart 4.4 SC



1. All students
 - The Science NPR for all Montana grade 4 students is 71%.
2. Students participating in free/reduced lunch programs
 - Statewide, the NPR for students participating in free/reduced lunch programs is 62%, one percentage point above 2004. That number is stable with all district size categories plus or minus 2-4 points.
3. Students not participating in free/reduced lunch programs
 - Statewide, the NPR for students not participating in free/reduced lunch programs is the same as in 2004, 76%. That number is stable with all district size categories plus or minus 2-6 points.
4. Comparisons
 - Statewide, students not participating in free/reduced lunch programs scored fourteen percentage points above participating students, 76% and 62% respectively.

Chart 4.5 SC



* To protect privacy, no results will be reported where the count of test takers is less than 10.

1. All students
 - The Science NPR for all Montana grade 4 students is 71%.
2. Students with limited English proficiency (LEP)
 - Statewide, the NPR for LEP students is 35%, six percentage points below 2004. The NPR scores vary among school size categories because of the wide variation in the number of LEP students tested.
3. Comparisons
 - Statewide, all Montana students scored 36 percentage points higher than limited English proficient students, 71% and 35% respectively. That number varies among school size categories because of the wide variation in the number of LEP students tested.